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# OPHTHALMOLOGY.

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The Transactions of the American Ophthalmological Society, which held its twentieth annual meeting at the Catskills in the summer of 1884, is a volume containing an immense amount of valuable material to most medical men; and as the number of those who are so fortunate as to see the report of these transactions must necessarily be limited, we have abstracted much that is of practical worth, and where we have not quoted more fully can only regret that want of space prevented.

The President of the Society is Dr. Wm. F. Norris, of Philadelphia, and it was decided to hold the next meeting at New London, in July of 1885. The Society now numbers eighty-seven members, from all parts of the United States, and of this number thirty-one were present, and the interest evinced in ophthalmology in general was proven by the variety of valuable papers presented.

The first was on *Iridectomy in Chronic Iritis*, and was contributed by Hasket Derby, M. D., of Boston, and our only regret is that we are not able to quote in full this interesting and instructive paper. He says: "Cases of recurrent iritis are familiar to us all. The patients are many of them young, with the world before them; handicapped as they enter upon the race of life with a painful and dangerous disease that may befall them at any moment, and is certain for several weeks to interrupt all their pursuits. Treatment is simple and efficacious where it may be had. But the question is, as to whether prevention is possible. Does iridectomy cure or ward off the disease? Instances of its performance in these circumstances are so rare, and the subject is of such importance, that I do not hesitate to present to the Society the notes of even a single case

related, if not actually belonging to this family, carefully followed for the past four years and furnishing an instructive commentary on the question just raised.

"November 13, 1880, there came to consult me Miss D., about sixty years of age, and in perfect health. She had never experienced the slightest touch of rheumatism, and at the time of, as well as for some time preceding, her visit to me, had been as well as usual. She now complained of a 'cold' in the left eye, which she said had lasted three weeks, unattended by pain, and characterized mainly by redness and slight dimness of vision. I found much ciliary injection, and numerous posterior synechiae in this eye. No treatment of any kind had been resorted to. Under atropine, a shade, and rest of the eyes, the synechiae were broken up, the redness rapidly disappeared, and the eye was as well as ever in five days.

To make a long story short, she had, between January 1st and June 3d, 1881, nineteen attacks in the right eye and fourteen in the left. They would last from one or two days to a week each, be attended by comparatively slight pain or lachrymation, but were always characterized by a tendency to the formation of numerous synechiae, readily yielding to a mydriatic. These attacks ordinarily alternated, though sometimes three or four would occur in the same eye, in rapid succession. For their treatment the various mydriatics were at different times employed, tonics, alteratives, and mercurials given alternately, and on one or two occasions a course of pilocarpin injections was gone through with. Nothing whatever made the slightest difference in the character or frequency of the attacks, which yielded more or less readily to mydriatics, and manifested a

tendency to return as the effect of the mydriatic began to pass away.

"June 3, 1881, I ordered atropine to be applied daily through the mouth. This was kept up till July 6th, each eye the while remaining absolutely free from inflammation. Eight days after the atropine was discontinued, a severe attack came on in the right eye. It was now resolved to keep each pupil dilated for a considerable length of time, in the hope of breaking up the tendency to inflammation. Atropine was accordingly ordered three times a week, in each eye, the patient following me to Mt. Desert, both for the change of air, and that her case might remain under observation during my absence from the city. For two months this plan was carried out, the eyes remaining perfectly free from redness, except on one or two occasions when the atropine was accidentally omitted.

"In February, 1882, I discovered a slight but distinct excavation, peripheric and partial, of the left optic entrance. There was neither arterial pulse, increased tension, or limitation of the field. Atropine was in consequence no longer employed regularly, but reserved for emergencies. The attacks continued as before—on March 8th, the left eye proving unusually obstinate, and leaving several synechiaæ, both above and below, that resisted mydriatics.

"I lost sight of her now until May 3d, when she reappeared, informing me that for several weeks she had been in New York and treated by Dr. Knapp. He wrote me that the attacks had continued, but been mild and transient. Eserine and homatropine had been alternately used, on account of the peculiar condition of the left eye. Tension continued nearly or quite normal, and the excavation did not increase. Under these circumstances he did not think an iridectomy indicated, and gave no encouraging prognosis as to the future of this case of recurrent iritis, as he clearly considered it.

"Soon after, Miss D., having been under observation eighteen months, sailed for Europe, carrying from me a letter to Professor Horner, in Zurich. He examined the case, agreed with Dr. Knapp and myself as to the treatment, as well as to the undesirability of an iridectomy, gave an encouraging prognosis, and dismissed the patient. Not long afterwards she found her supply of atropine exhausted, and being unable in the place where she then was to obtain a fresh solution without a prescription from a local surgeon, she consulted one. She had at the time no intention of having her eyes examined, as no change had

occurred, the attacks remaining mild and transient, and vision not having fallen off perceptibly. But the gentleman she went to made an examination, informed her that she had glaucoma in the left eye, that blindness was imminent unless iridectomy was promptly performed, and pressed the operation. Surprised, and, in fact, overwhelmed by this intelligence, she consented. Four days later, glaucoma was diagnosed in the right eye, and an iridectomy done on that. Shortly afterwards a second operation was done on the left.

"The left eye was operated on October 1, the right October 4, 1882. The subsequent history of the case, as given by the patient herself, is as follows: For three months the inflammations continued, exactly as before, in each eye, an attack coming on every week. After that they grew more infrequent, and were accompanied by less redness. Gradually, all defined attacks ceased, though slight redness would from time to time occur.

"When I saw her, in February, 1884, there had been no treatment used for fourteen months. Each eye presented a free iridectomy, done upwards. The synechiaæ remained as before. Vision was from one-tenth to two-tenths in each eye. Tension, normal. Each vitreous slightly hazy, some large floating opacities in the left. Each nerve presented a wide-spread, shallow physiological excavation.

"The patient complained bitterly of intolerance of light, and of inability to accommodate herself to sudden changes of illumination; in short, of all the usual disturbing effects of an iridectomy.

"Here, then, we have a case of chronic recurrent iritis, extending over two years, and persistent to an unusual degree. We are, accidentally, enabled to study the effect of an iridectomy on the progress of the disease, which, at the time, was evidently growing less severe. And while, on the one hand, we cannot but be astonished at the tolerance exhibited by such an iris toward such a serious operation, it must, on the other, be admitted that there was no immediate effect on the disease, and that in all probability the ultimate cessation of the symptoms was due to the fact that the malady had worn itself out, and was self-rather than artificially-limited. In view of all the circumstances, I am unable to persuade myself that the iridectomy did any good here, or would be justified in another similar case."

In the discussion which followed the reading of this paper, the remarks of Dr. H. Knapp are important. He said:

"Iridectomy in chronic iritis has been frequently made, and often resulted badly. There is not the slightest doubt that in many cases iritis will relapse for years, but finally get well. I accidentally saw a young lady in this hotel who for five years had many attacks of iritis. She has now perfectly recovered. In some of these cases of recurrent iritis iridectomy is performed, nevertheless the attacks continue for years. Iridectomy is a remedy, but not a sure one. From the experience which I have had I restrict it to those cases in which, besides the iritis and adhesions, there is a tendency to cyclitis and glaucoma. I think that under such conditions iridectomy is indicated beyond dispute. As long as the iritis remains simple, with a limited number of adhesions, and a part of the pupil moves freely, I do not, as a rule, perform iridectomy. I do think that iridectomy is a remedy which, if it does not always prevent the attacks, mostly diminishes their frequency, and, on the whole, has a good effect. A few years ago the same question came up at the Heidelberg Congress, where some of the more experienced oculists took the ground that it favored an extension of the process, and they were much averse to it. The decision whether or not iridectomy should be performed depends greatly upon the course and the gravity of the disease."

"*Three Cases of Restoration of the Eyelid by Transplantation of a Flap Without a Pedicle*" were reported by Charles Bull, M. D., of New York, and "*A Successful Case of Skin-flap Transplantation Without Pedicle to Lower Lid After Removal of an Epithelioma*," is instructively reported by B. E. Fryer, M. D., of Kansas City, Missouri. He says: "Successful cases of transplantation of skin-flaps from distant parts, without pedicle, have been sufficiently numerous to give the operation a permanent place both in ophthalmic and general surgery. Those who have done the operation in the last few years have not always followed Wolfe, who originated it, either in the operative procedure proper, or in the dressing afterwards; and it would seem that especially a simpler and probably a more effective dressing than Wolfe's, as far as the retention of the flap is considered, has been sought by later operators;" and Fryer makes the point that "his dressing was increased, it is believed, in its retentive power and simplicity, and lessened in part of its quantity, and the patient, therefore, was relieved of some of the irksomeness."

*A Case of Gangrene of the Lids, with Subsequent Restoration of Tissue without Plastic Operation*, is de-

scribed by Richard H. Derby, M. D., New York, who says: "It seems to me that in connection with the papers which have been read on Wolfe's operation, my case is not without interest, illustrating, as it does, how efficiently nature herself replaces lost tissue without the assistance of the surgeon's knife."

A unique and interesting *Case of Hysterical Monocular Blindness, with Violent Blepharospasm and Mydriasis—All Relieved by Mental Impression*—is described in detail by George C. Harlan, M. D., of Philadelphia.

L. D.—, sixteen years of age, first came under my observation September 24, 1883, at the Throat Department of the Philadelphia Polyclinic, under the charge of Dr. S. Solis-Cohen, where she applied for relief of distressing symptoms caused by the development of a fungus growth upon the tonsillar mucous membrane.

Having been thus initiated in the charms of medical treatment, she was, on December 26, on account of the development of various nervous symptoms, referred to the Nervous Department under Dr. Mills, who has furnished me with the following record of the case: "She was taken sick last September with sore throat, and was confined to the house for about two weeks. She was very weak during this attack. Dr. Cohen attended her, and there was some doubt about the throat difficulty being diphtheria, but this throat trouble was followed by difficulty in swallowing and regurgitation of food through the nose. At the same time there was noticed a gradual weakness of sight in the right eye. After these troubles had somewhat lessened, huskiness of the voice came on, and was soon followed by complete loss of the voice," etc.

*Neuro-Retinitis, with almost Sudden Loss of Sight in Both Eyes*, is graphically treated by H. Knapp, M. D., of New York, who cites two cases.

"During the last year two cases of almost sudden loss of sight in both eyes, with the picture of optic neuritis, came under my observation. In the one the blindness remained permanent, with the exception of a small island in the visual field of the right eye; in the other case, sight was perfectly restored in both eyes. The blindness in both cases was binocular and absolute, with complete immobility of the pupils on changes of light, in the first case for several months, in the second for three days. There is nothing very unusual in the recovery of sight after neuro-retinitis from meningitis and other diseases, much less unusual is the permanence of blindness after neuro-retinitis; but total blindness occurring in

the course of several hours, being accompanied by nothing but choked disc—constitutional diseases, such as albuminuria, diabetes, syphilis and the like, being absent—is certainly very rare. In my own practice I do not, at this moment, recollect any other cases, and the literature on the subject is so meagre that the communication of the cases mentioned may not be without interest to the members of this Society and the readers of our *Transactions*." The cases are well worth a careful reading by those interested.

A carefully-written paper, and one worked out in the German style of thoroughness, treats of *Hereditary Atrophy of the Optic Nerves*. By W. F. Norris, M. D., of Philadelphia. N. says:

"Since I presented to the Society, in 1881, a paper describing the history of a family in which atrophy of the optic nerves was hereditary, and of which two members submitted themselves to me for examination, I have again encountered another group of individuals exhibiting this remarkable affection: a family of seven children, all of whom, as well as their parents, I had an opportunity of carefully examining. Every child was affected, while the parents had perfectly healthy eyes. According to their intelligent account of the affection, it extended back on the mother's side; the disease attacking the great grandmother, a grand-uncle, two uncles, and several cousins. It is unusual to have an opportunity to study such a group of cases at various ages and in various stages of the disease, thus enabling us better to appreciate the progress of the malady. It is well known amongst breeders of animals, that the phenomenon of atavism, or the transmission of qualities of a progenitor which first develop in the second generation, is frequent. We, as students of diseases of the eyes, occasionally have an opportunity of witnessing the same law in the inheritance of perverted nutrition of the tissues of these organs. Our most frequent opportunity of studying transmitted disease is, however, undoubtedly where the transmission is direct from parent to offspring, as in the case of that form of interstitial keratitis due to hereditary syphilis. Here, as well known, the disease usually remains limited to the cornea, although it may secondarily invade adjacent tissues. This we can readily understand, when we consider the peculiar anatomical construction of the diseased tissues, so different from that of the contiguous structures. We cannot, however, so easily comprehend why certain delicate nerve-fibres of the optic nerve and retina, which are in a state of oedematous swelling with proliferation of the surrounding connective tissue, should for so long a period of years exhibit such well marked pathological changes, notwithstanding that the adjacent fibres, which have a common anatomical structure as well as a common lymph (and blood) supply, remain comparatively unaffected. Are we to consider that these pathological phenomena are a manifestation of a local force treasured up in the cells of the tissue itself, or of perverted energy lurking in the distant but corresponding cells of the central nervous system? The manifestations of the disease under consideration begin with the formation of central scotomas, first for color only, so slight that the different hues, though dimmed in intensity, are still readily recognized. The defect gradually pro-

gresses until a complete scotoma both for form and light is developed. The peripheral parts of the retina are affected later, and when they are involved, often lose to a marked degree their sensibility to color, but rarely to form and light. Although the patient is debarred by reason of his loss of macular vision and his color-blindness from most useful and remunerative occupations, he still retains sufficient peripheral sight to guide himself and to do a certain amount of coarse work." Then follows the clinical histories of those of the family coming under his immediate supervision.

*Jequirity Ophthalmia* is again stirred up by Jos. A. Andrews, M. D., New York, who, from experience, warns us not to play with explosives. He commences: "Having quite recently considered, at some length, the subject of jequirity ophthalmia, I desire here to limit my remarks to a brief review of certain papers that have appeared on the subject in question since my own communication alluded to above was published.

"First, is jequirity directly responsible for the disastrous results which have been placed on record as having followed its use?

"However, if we compare the number of authors who have declared themselves for or against the jequirity treatment, we find that the former are conspicuously predominant, and it would seem that those authors who do not favor the remedy, such as Vossius, Galezowski, and Nicolini, might change their views if their experiences were extended to a larger number of selected cases.

"Serofulous pannus, sclerosis of the cornea, are favorably influenced by jequirity, and I have had very gratifying results in this class of cases in improving the vision; but I have never used the remedy, as DeWecker has, in torpid ulcers of the cornea—firstly, because I could not satisfy myself that the cornea was not placed in still greater danger by its use; and secondly, I felt that I could rely on safer and really satisfactory means. However, of course, mere conjecture should not be permitted to weigh against the results of experience, and DeWecker's experience seems to speak in favor of the remedy in this class of cases."

We would urge upon those who might be tempted to use the infusion of the jequirity bean, in any given case, to make themselves familiar as to the proper sort of cases in which to start a jequirity ophthalmia, and to the precise strength and mode of application of the infusion used as well. Having considered their reputations at stake, they are then to proceed with extreme caution.

*A New Perimeter* is described by Ezra Dyer, M. D., Newport, R. I. The advantages claimed for this perimeter are:

1. The entire field of vision is traversed by eccentric object from the periphery to the centre, and by reversing the motion, from centre to periphery, in two minutes, without haste. This brings an exhaustive examination of the field of vision, for the detection or exclusion of a limitation or scotoma, within the available time of any one.

2. When a limitation of the field is detected it can be very rapidly mapped out, saving time to the examiner, fatigue to the patient, and en-

suring greater accuracy, as in the short time required there is little danger of a movement of the head.

3. Both objectives can be made small electric lights of from one to seven candle power at will.

With these, the sensibility of the retina can be tested quantitatively.

H. S. Schell, M. D., of Philadelphia, records "*A Case of Embolism of the Retinal Artery*," which has some features of peculiar interest. In his interesting description of the case, S. says: "In the inferior branch of the artery, just before it passed over the edge of the disc, there was a space about one-fourth of the disc's diameter in length, which was apparently empty of blood. This space included the entire calibre of the vessel, was pale in color, and motionless. Pressure upon the ball from before backward, in the manner recommended by Mauthner, so as to increase the ocular tension, emptied the veins completely, but had no effect upon the arteries. The veins refilled instantly when the pressure was removed. After massage had been practiced in this way for some minutes, a regular current of blood began to flow through the vessels. This movement was made visible by the fact that the blood stream was broken into numerous very short cylinders, separated by about their own lengths, and following in procession, without rhythm, and with about the apparent rapidity of the blood corpuscles in the capillaries of a frog's foot, under the microscope. These little cylinders passed from the disc some distance along the arteries before they were lost sight of in the edematous retina, then formed again at the distal extremities of the veins back to the disc."

The next is "*A Case Illustrating the Natural History of Cataract*." By A. Mathewson, M. D., of Brooklyn, N. Y.

Another, "*Myxo-sarcoma of the Orbit and Osteoma of the Orbit*." By Wm. F. Norris, M. D., Philadelphia.

A "*Clinical History of a Case of Sympathetic Ophthalmia*," graphically related by L. Webster Fox, M. D., serves to teach us an important lesson.

"On December 15, 1883, William R., at 12 years, whilst cutting a cord with a sharp-pointed knife, accidentally punctured his left eye in the ciliary region. The wound, which was four lines in length, and deep, was situated in the inner and lower quadrant of the ball, near the cornea. Cold applications made, and the eye bandaged. In twenty-four hours serous iritis developed, closing the pupil and obscuring vision. This condition went on from bad to worse till qualitative perception of light only remained. There was no pain, neither was the eye sensitive to light during the acute stage of the iritis. The patient was allowed his freedom during this time, and a mydriatic was not applied, nor internal treatment advised. It was thought the inflammation was due to a "cold," and would soon pass off.

On January 2, the boy was sent to school; the eye at this time still very much inflamed, but without pain, it being protected by a bandage.

On the 4th of January, he complained of a dimness obscuring his distant vision in the right eye. His mother (a poor widow) sought the aid of an ophthalmic expert, who, recognizing the

gravity of the case, at once instituted vigorous treatment. The eye soon became as bad as its fellow.

On March 28, 1884, the date the patient was first seen by myself, the conditions were as follows: Left eye (injured one), cornea hazy, keratitis punctata, balloon-shaped iris, degenerated in spots, occluded pupil, sclerotic congested, slight perception of light. The cicatrix of the wound well defined. The right eye similar in appearance, excepting the pathological conditions more pronounced. On the iris, which was very much thickened, could be discerned by oblique illumination new-formed blood-vessels. There was barely qualitative perception of light. During inflammatory process, the patient suffered little or no pain; light, however, could not be borne. We could only confirm the prognosis given by the former attending physician; but as considerable inflammation, as well as inflammatory deposits, remained, we instituted mercurial treatment guarded by opium, with instillations of atropia, as well as applying leeches to temples. This treatment was forced to salivation, but did not modify the virulence of the disease.

On April 19, my friend Dr. R. B. Schulze, under whose care the patient was at this time, wrote me that hypopyon made its appearance in the right eye during the last few days; some slight supra-orbital pain. The mercurial treatment, both internally and externally, was resorted to, in small but frequent doses; the inflammation seemed to respond to the treatment, for in three days the pus disappeared, the thickened and yellowish-brown iris assumed a more normal shape and color. During the following few weeks the sclerotic congestion disappeared, becoming white. Lachrymation, which at times was profuse, now disappeared entirely, the eyes assuming a normal appearance, but vision gone.

On June 21, I saw the patient and noted the following: Right eye, all traces of inflammation gone, but atrophied to one-half its former size. No perception of light. Left eye evidently becoming atrophic, perception of light (?) in the upper field; sclerotic white.

*Two Cases of Orbital Abscess*, by J. A. Lippincott, M. D., Pittsburgh, Pa. Both cases are interesting.

Another peculiar and interesting paper is entitled *Experiences in Refractive Cases*, by W. W. Seeley, M. D.

*Cases of Disease of the Frontal Sinus*, by Charles J. Kipp, M. D., Newark, N. J.

*Case 1. Abscess of Frontal Sinus, Ethmoidal Cells, and Sphenoidal Sinus*. John Bredfelt, fifty-two years of age, in good health, consulted me in March, 1883, with regard to a double vision and pain in the head. He had suffered for many years from frontal headache, but had otherwise always enjoyed good health. A year ago he first noticed the diplopia, and since then a gradual protrusion of the eye has taken place.

I found that the left eye was pushed downward, outward, and slightly forward, the cornea of this eye standing about 1 cm. below that of the other eye. The mobility of the eye was decidedly impaired upward and inward. The eyelids were normal, except that the upper was rather fuller than that of the opposite side. Palpation dis-

covered a nodular tumor of irregular form, which was adherent to the upper half of the inner and nearly the whole of the upper margin of the orbit. It projected about 1.5 cm. towards the eye, and extended back in the orbit as far as the finger could reach. It felt hard and unyielding to the finger. No fluctuation could be discovered. No pulsation of the tumor could be detected. The sight of this eye was normal, and the ophthalmoscopic examination revealed no abnormality, except slight hyperæmia of the retinal veins. I supposed that the tumor was a sarcoma connected with the periosteum of the orbit, and advised removal.

The sight of the right eye was perfect; it was slightly myopic. A few days later, the patient being under ether, I made an incision along the upper margin of the orbit, exposing the tumor. I then introduced my finger to ascertain the character and extent of the tumor, and learned that it was in parts as hard as a bone. While still exploring, I felt a break in one of the hard parts of the tumor, and a moment later a considerable quantity of very fetid pus escaped from the incision. I now endeavored to ascertain the extent of the abscess by means of a probe, and found it to extend so far upward and backward that I concluded to abstain from further exploration. I made a free opening in the wall of the abscess, evacuated large quantity of offensive purulent matter, and introduced a large drainage tube into the opening. When the patient became conscious, he complained of a horrible odor in his nose, and expectorated much fetid pus. After this, the cavity was washed out daily with a warm and very weak solution of salt, some of which escaped from the nose. For ten days after the operation, the patient was apparently doing remarkably well, the eyeball had resumed its normal position, the diplopia was less, the headache had almost entirely disappeared, and the patient was entirely free from fever. But on the eleventh day he showed symptoms of pneumonia, which in spite of the most assiduous attention ended fatally on the seventeenth day after the operation. The autopsy was made on the following day by Dr. R. Stachlin, who had treated him for the pneumonia, and myself. The examination showed that the frontal sinus, the ethmoidal cells, and the sphenoidal sinus, had been converted into one large cavity, which contained some pus in its lowest part. The bony walls of the cavity were carious, and numerous sharp spiculae of bone projected from the walls. The inner surface of the cerebral plate of the horizontal process of the frontal bone was discolored in several places, but not roughened. The dura mater over these places as well as everywhere else was normal, and the other meninges and the brain itself were apparently healthy. The floor and outer wall of the abscess consisted of very much thickened periosteum, in which a number of thin scales of bone were imbedded, and in one of these the opening was found from which the pus had escaped during the exploration. The lungs showed a simple pneumonia; there were no abscesses, and none of the other usual appearances of metastatic pneumonia.

*Remarks.*—The mistake made in the diagnosis of this case seems unavoidable.

The slow development of the tumor, its size,

hardness and inelasticity, the irregularity of its surface, and the absence of all inflammatory symptoms, made it extremely probable that the tumor was a fibroma or sarcoma originating in the periosteum of the orbit. Fortunately, this error in diagnosis resulted in no harm to the patient, for, had I known the true character of the disease, I should have operated as I did; but I should have been more guarded in my prognosis. In no other case have I seen the bony partition between the frontal sinus, the ethmoidal cells and the sphenoidal sinus so completely destroyed as in this.

*Case 2. Distension of the Frontal Sinus. Cured by Applications to the Mucous Membrane of the Nose and Pressure of the Tumor.* Mrs. N. A. W., fifty-seven years of age, a large and healthy looking woman, consulted me with regard to a painful swelling below the left eye-brow, in October, 1882. According to her statement, she had for many years suffered almost constantly from a severe pain in the left frontal region. The tumor began to appear six months ago, and had since steadily increased in size. She had not sustained any injury to the nose or head, but had always had naso-pharyngeal catarrh. The tumor was about the size of a hickory-nut, and was immovably attached to the inner upper angle of the orbit. It extended into the orbit as far as the finger could reach. The surface of the anterior part was smooth, that of the posterior portion nodular. The tumor was quite hard, but on deep pressure fluctuation could be felt. The skin over the tumor was normal, and not adherent to the swelling. The eye-ball was pushed slightly downward and outward, and its movement upward and inward was somewhat impeded. The diplopia did not annoy the patient very much; The examination of the fundus of the eye showed nothing abnormal. With the exception of great swelling and congestion of the mucous membrane, nothing abnormal could be detected in the nose. There could be no doubt that the tumor was caused by the distension of the frontal sinus, and I therefore advised the patient to have an operation made for the purpose of establishing communication between the nose and the frontal sinus. This the patient declined to have done.

I did not see the patient again till July 21, of the following year. At this time the tumor was somewhat larger than it had been when I first saw her, but otherwise it had not changed. There was now in addition much injection and edema of the ocular conjunctiva, and a shallow ulcer in the center of the cornea. The eye became painful several days ago, and the redness was first noticed two days before. The patient attributed the eye trouble to overheating while working in the field, and was sure that the eye had not received a traumatic injury. I prescribed fomentation with a warm solution of boracic acid, and instillations of atropia. Under this treatment the ulcer healed completely in about twenty days. While under treatment for the corneal ulcer I frequently examined the tumor, and on one of these occasions felt it to give way, and on pressing somewhat harder I evacuated the cyst almost entirely. At the same time the patient felt something exceedingly disagreeable in taste in her mouth, and expectorated a considerable quantity

of very offensive, bloody muco-purulent matter. I now learned from the patient that the swelling had "broken inwardly" several times during the last few months, and the discharge had on each of these occasions been exceedingly offensive. I applied solution of nitrate of silver to the mucous membrane of the nose, and frequently washed out the nose with warm salt water, and at the same time instructed the patient to evacuate the cyst by pressure very frequently through the day. For some weeks after this the cyst refilled very quickly, and at one time an inflammation of the skin over the tumor was developed, which spread also over the right half of the forehead. Under the application of ice compresses this subsided, however, very quickly. Until the first of May, 1884, the patient was free from pain in the eye and forehead; the cyst became distended but rarely, and when it did could be emptied by slight pressure. Although always of a disagreeable taste and odor, the discharge had not been offensive for several months. The diplopia had entirely disappeared.

In the early part of May, while apparently in excellent health, she had a severe chill, followed by fever and sweating. I saw her on the following day, but could find no marked change about the frontal bone. The ophthalmoscopic examination revealed indistinctness of margin of optic disc, but no other abnormality. Quinine was given for a week, and no other paroxysm of fever occurred. Since then the patient has enjoyed excellent health. The tumor has not reappeared for many weeks, and the optic disk is again entirely normal. The skin over the inner upper margin of the orbit is somewhat thickened, but otherwise normal. The defect in the inner upper angle of the orbit is about the size of a ten-cent-piece, and its margin is markedly nodular, several of the nodules being about the size of a pea. The end of the finger can almost be pushed through the defect into the frontal sinus. The mucous membrane of the nose is still swollen, although the swelling is much less than it was six months ago. Now, it is not an uncommon occurrence for air to enter the frontal sinus and distend it when she blows her nose.

*Remarks.*—This case seems worth reporting, as it shows that in some cases, at least, this disease can be cured without resorting to an incision in the outer wall of the distended sinus. In nearly all of the cases that I have seen, in which the sinus was thus opened, a permanent fistula, causing much annoyance and some deformity, and any method of treatment not involving such an incision, and yet giving as good results, will, I have no doubt, be welcomed. It can certainly do no harm, if it does no good, to endeavor to cure, or at least improve, the morbid condition of the lining membrane of the nose, which will be found to be present in most, if not all, of the cases of distension of the frontal sinus. Attempts to empty the sinus through its obstructed or closed passage into the nose by digital pressure on the swelling should be made from time to time, and after the sinus has been once emptied, it should be evacuated at short intervals. If, after a fair trial of this treatment, the distension continues, the old method of treatment may be resorted to.

*A Case of Glioma of the Retina (Double Congenital)* by Wm. S. Little, M. D., of Philadelphia. It was seen in a child eight months old. He says in a case recently reported by Mr. Snell, at a meeting of the Ophthalmological Society of the United Kingdom, the mass in each eye was recognized at three months of age. Child seen by Mr. Snell when it was eight months old; the right eye was removed; three years later the left eye enucleated; eighteen months later the child died, a tumor projecting from the forehead; there was no recurrence in the orbits. The age at death was five years and two months.

Enucleation evidently prolonged life in this case; the rejection of any surgical interference by the parents of the case reported, did not allow this to be shown, but as fatal results are reached in congenital cases, so rapidly, operation becomes almost questionable; when recognized early it is advisable. An interesting feature in this case is that while the right eye was more involved the tumors on the left side of the head were larger than the one on the right side, and yet the mass in the left eye developed very slowly, or almost remained stationary.

In two other cases seen at his clinic, in older children, and only one eye involved, the operation was refused; done, however, by another surgeon, after the eye had broken down, and fatal results soon followed.

*Two Cases of Swelling of the Optic Papilla—Possibly Congenital.* By George C. Harlan, M. D., Philadelphia, who says, "Though optic neuritis without impairment of the vision in its early stages is a common enough occurrence, the two cases seemed worthy of record, on account of the high degree of sight retained, and the length of time they were under observation without change in the ophthalmoscopic appearances, and without the development of any other symptom."

*Two Cases in which Rähmann's Hyperbolic Lenses Improved Vision.* By G. Hay, M. D., Boston, Mass. He regarded case 1 of slightly developed conical cornea, with irregular astigmatism; and case 2 pronounced conical cornea of each eye; no opacity at apex noticed.

*A Case of Myxedema with Atrophy of the Optic Nerves.* By O. F. Wadsworth, M. D., Boston. It is only quite recently that the disease known as myxedema has excited much attention; its pathology, beyond the fact that there is a deposit of mucin in the subcutaneous tissues, is still unknown; and even the symptoms observed in the cases reported have presented in some respects considerable variations. Although symptoms pointing to disturbance of the cerebral nervous system have occurred in some cases, no affection of the eyes, in particular of the optic nerves, has, so far as I am aware, been described. It may, therefore, be of interest to put on record the following case, in which there was atrophy of the optic. It may well be that the optic atrophy was only coincident, and had no direct connection with the myxedema. Yet primary atrophy, as this evidently was, when it affects both eyes, is of comparatively seldom occurrence as an independent lesion.

*A Report of the Examination of the Employees of the Pennsylvania Railroad as to Color Sense, Acuteness of Vision, and Hearing, by William Thompson,*

M. D., Philadelphia, Pa. An instrument for the detection of color-blindness, described in our Proceedings\* of four years ago, a modification of Snellen's Letters, in the form of a disc, and a series of rules and regulations prepared by the writer, were adopted by the officers of the Pennsylvania railroad, and have been used in the examinations of their employees in signal duty, and is in use now in the selection of all men who enter the service. The road operates five thousand miles of track, situated in six different states, and has about fifty thousand employees, of whom from ten to twelve thousand have to do with signals.

Upon each of the fifty divisions there are two examiners, who are instructed by the surgical expert in their duties, their results being recorded on blanks, which contain all the information needed by the division superintendent, who can transfer to other duties men below the standard, or refer them for final examination or treatment to the surgical expert. The rules and regulations and blanks have already been published, and can be obtained from the General Manager, Mr. Chas. E. Pugh, who, in a letter dated April 20, 1884, says: "In approaching the completion of the task of examining those men in our service (more than twelve thousand employees having now been submitted to your system), I desire to express to you our entire satisfaction with the rules and regulations, tests and instructions prepared by you, as well as with the personal supervision, instruction of examiners, and examinations and decisions of all doubtful cases, and persons referred to you for final action.

"Our reports satisfy me that about four per cent of color blind, and ten per cent, defective in vision, have now been removed from the service, or transferred to other duties where they can do no injury; and that the great dangers to the public and to other employees of loss of life, and to the company of possible destruction of property, have been averted, so far as these defects are concerned.

"I am frequently asked by prominent officers of other railways, and government officials, to give an opinion as to the practical usefulness of our system of examinations, and it affords me much pleasure to emphatically commend it in all its details; and I feel that we have good reason to be satisfied with this, the first successful attempt to bring the entire body of men engaged in signaling upon a large railway under control by the practical application of scientific facts. Having eliminated these dangerous persons from our present force, we propose to keep it free from them in future, by a steady application of our present system.

I will add, that so smoothly has the entire system been worked, that no change has been found necessary. The example of this, the most important road in the country, in the wise employment of scientific knowledge, can now be safely followed by others, or might be made the basis of legislation, should it be found requisite."

*A Case of Acute Dacryo adenitis.* By T. R. Pooley, M. D., of New York. "Acute inflammation of the lachrymal gland is of sufficiently rare occurrence to make it worth while for this reason

alone to report an additional case, but the one I am about to put on record showed another interesting feature, which makes it especially worthy of mention.

The patient, a healthy German girl of about twenty-four years.

The interesting and unusual feature in my case is the occurrence of an acute inflammation of the gland, during the course of an acute diphtheritic inflammation of the other eye, and raises the question in my mind whether it may not have been caused by septic absorption. The general health of the patient was very greatly impaired, and the slight rise of temperature may have been due to a mild septicæmia. In regard to treatment, hot applications, with the systematic use of pressure, together with incision should the abscess point, is all that is required. Although I have seen a small number of cases of chronic and sub-acute inflammation of the lachrymal gland, this is the only instance in which the case has run such an acute course."

*Multiple Colobomata of the Iris, or Polycoria Congenitalis.* By W. F. Mittendorf, M. D., New York. "The infrequency of this condition will, I hope, excuse me for reporting two cases of this kind. Double pupils, congenital as well as traumatic, are not rare, but five pupils in one eye are not often seen. Cuts accompany this rare anomaly."

*Removal of Foreign Bodies from the Vitreous by Aid of the Electro-Magnet.* By Joseph Aub, M. D., Cincinnati, O. "The cases I am about to report, are such as occurred in my practice during the past four years.

From 1875 to 1881, we had eight different times, attempted the removal of pieces of gun cap, iron or steel, from the vitreous by aid of forceps. Twice the ordinary horse-shoe magnet was called to assist in the operation. Six of the eight cases were relieved of the foreign body, but in two I utterly failed. In all cases the operation was followed by severe inflammation, and enucleation of the eye-ball had to be performed sooner or later, either by myself or some other oculist.

In 1881, after Dr. Bradford had described his electro-magnet, a case came into my hands in which it seemed to me the magnet could be advantageously used, and I immediately procured one, and used it successfully. Since then other successfully operated cases have occurred in my practice. During last fall, Hirschberg, in the *Centralblatt für Augenheilkunde*, reviewed the book of Dr. Snell, of England, "On the Use of the Electro-Magnet in the Removal of Foreign Bodies from the Eye," and in studying this review, I was exceedingly surprised at the few successful operations reported; for up to that time my cases had all been successful. My cases were such as occurred in the usual run of practice, and were not specially selected for that purpose. Since last fall I have had one case in which the electro-magnet failed to remove the foreign body, and where enucleation was subsequently performed."

*A Case of Hypermetropic Refraction, passing while under Observation into Myopia—Symptoms Simulating General Nervous Disease,* reported by S. D. Risley, M. D., Philadelphia, was one of the most interesting of all the papers read, and to be understood must be read in toto, and to those interested it is well worth looking up.

\*Am. Ophthal. Society.

